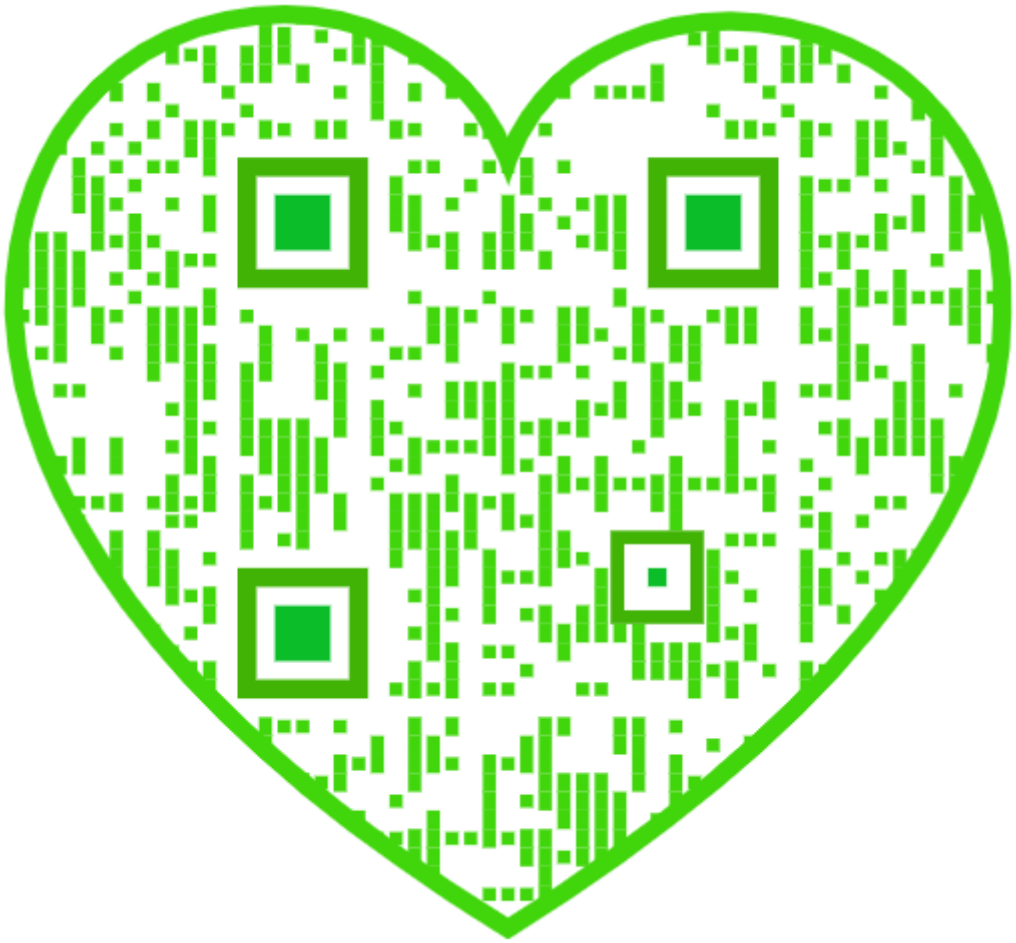

DIVISIONAL

AND

EXACT MEASUREMENT

Systems

FOR GARMENT CUTTING,

BY

W. O. LINTHICUM,

[Editor of Linthicum's Journal of Fashions.]

174 FIFTH AVENUE, NEW YORK.

Containing twenty-seven Diagrams, explanatory of both Systems, and accompanied by a Ruler, with nine special divisions adapted for Drafting by the Divisional System, and giving explicit directions for Measuring, Drafting, &c.

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INTRODUCTORY TO LANTHECUM'S SYSTEMS OF CUTTING.

When undertaking the duties devolving upon an Editor of Fashions, it certainly was not my intention to come before the Tailoring Trade in yet another position, that of an originator and publisher of a system or systems for Drafting. I not only expected, but expressed a determination to confine myself within journalistic limits, and not use its privileges for promulgating any special system, preferring a more general basis for the ideas I might have occasion to ventilate, from time to time.

To me it appeared that a journal's usefulness was greatly restricted by being hampered with set theories that might not admit of extension or bear the contact of antagonistic sentiments; hence the desire on my part, while keeping my journal within its proper boundaries, to have it so far uncontrolled as to leave freedom for active thought and honest expression, regarding all matters coming within its range.

The above reasons appeared all sufficient to deter me from advancing my own peculiar method of Drafting, and only the constantly increasing demand for my mode of Cutting, and the urgent entreaties of many members of the Trade for my system, caused me to view the subject in a different light, and realize that it would not necessarily turn my journal into an organ of self advertisement, if I concluded to publish my system. Most assuredly I could not, without great detriment to other duties, spare time to answer the numerous missives I received, requesting special instruction regarding my method of Drafting, and upon consideration, I deemed that justice to the many seekers of information and myself, required the issuing of the present

work on Garment Cutting. Long experience has taught me the value of a simple and correct system for Drafting Garments; and the necessity I felt for such a system, and my eagerness to take long strides on the road to improvement, spurred me to diligent labor, and after long and most careful testing, I can pronounce the success of the result of my efforts as being beyond even my own most sanguine expectations. If I was simply a Tailor by theory, a theoretical system might answer my purpose and serve as a publication, provided the publishing of a system was my only aim.

But I am essentially a practical Tailor, and most zealously have practised my system, and made it earn its right to claim from others the high encomiums I bestow upon it. What I have stated before, may here bear repetition. By years of experience and study, I have gained a not unenviable reputation as a Cutter; and it has ever been, and is now, a source of pride with me to justly merit it. Hence, in preparing my systems, I have stinted neither time nor means to bring them to successful completion, and arrive at the point I have reached, as I desire these publications to add to, instead of detracting from, the estimation many have placed on my ability. "What is worth doing at all, is worth doing well," and as merit only can obtain and sustain a position of worth and prominence, it has been my effort to make the merits of my systems so perceptible to the minds of all that experiment with them, that they cannot fail to receive due appreciation. It is impossible for every one to think alike. If they did, the sameness in life would be unendurable, and competition unknown. In Tailoring, as in every thing else, the opinions and systems are worth most that can best be substantiated by able tests. That the inventor of a practical theory should be biased in its favor is natural. It is the offspring of his brain, over which he has toiled uncomplainingly, to make it prove worthy of him. When it is entrusted to the colder criticisms of others, he watches it anxiously, eager that it clearly demonstrates to the discriminate investigator the benefits he so clearly sees, underlying its principles, and over each convert it makes, feels repaid for every weary hour past in its invention.

Every work can be propelled into notice by loud puffing; but it is genuine worth alone, that can command fixed attention. The reason that so many systems float for

a time on the market, and then sink to obscurity, is that, as a general thing, they owe their origin to theory only.

Some person thinks he has found the philosopher's stone, and made science reveal its treasured secrets.

He at once hastily illustrates, to his own satisfaction, his ideas, and a system is sent forth to the trade. It appears desirable, and purchasers are numerous; but it don't realize their anticipations, so they begin to alter here, and change there, in the vain hope of making it satisfactorily supply their requirements. The cause of the defects, and the non-discovery of them by the designer, lies in the fact of his lack of opportunity for testing his system as thoroughly and under as varied circumstances as a practising Tailor. All the faults that appeared to the inventor's eyes, he provided a theory to rectify; but he could not imagine all the trials it would be subjected to, and therefore, don't comprehend its failures. It stands to reason that a Tailor, successfully doing business, producing a system, has facilities for thoroughly testing and perfecting, that only others situated like himself can avail themselves of; and it is this very point I consider a good foundation for the confidence I have in the systems I now place before the trade. They have past through seasons of trial, and came out victorious. They have been subjected to every possible contingency, but beyond everything I ever tried, have met the wants of my business. With accuracy, I have accomplished my purpose, and embodied my views for general use. Upon my work I have set a value, believing it will repay its cost to the purchaser ten fold. Some persons are never open to conviction, and always dread a turn off from the beaten track.

Bacon says, "that surely every medicine is an innovation, and he that will not apply new remedies must expect new evils, for time is the great innovator; and if time, of course, alter things to the worse, and wisdom and counsel shall not alter them to the better, what shall be the end?"

"Time don't stand still, but contrariwise, moveth so around that a froward retention of custom is a turbulent thing."

"And they that reverence too much old times, are but a scorn to the new."

How far my sentiments agree with the above quotations, I will leave my readers to judge.

In reference to my systems, I have frankly made assertions and given my experience. Those who have not confidence in them, are not compelled to experiment in either. One thing I am sure,

Both the systems that I've made,
In the balance can be weighed:
And (I say it without vaunting,)
They neither will be found wanting.

W. O. LINTHICUM.

MEASURING.

In order to cut a good Garment, it is essentially necessary that a correct measure be obtained; and my mode of measuring is so very simple, that it is hardly possible to commit an error, if ordinary care be observed. Take all the measures over a Coat of the usual cloth thickness, except the breast and waist, which must be taken over the Vest. Be particular and see that the Coat is not excessively stuffed with wadding, or the measures obtained will be too large.

It is an excellent plan to make unlined Coats, or long close fitting Jackets with sleeves, from elastic goods of medium weight, and keep on hand three or four different sizes to put on customers when they are to be measured.

A trial of the above will result in the measures taken being more uniformly accurate, and the cost of the Garments kept for the purpose of taking them, paid in a few weeks by the saving in alterations. Take as few measures as possible; and I advise all new beginners to practise measuring many times before attempting to Draft. They will thus acquire ability, and form the habit of taking measures with ease and correctness, thereby showing familiarity with the matter in hand. Hesitancy and awkwardness, where they exist, leave an impression of incompetency on the minds of customers. Always take the measures in the same order, thus avoiding omissions and annoyance to customers, in having to place them in the same position more than once. The above suggestions will not be injurious to some

Cutters I have met, who are well advanced in the art of Cutting.

Directions for Measuring for the Divisional System.

First, have the Coat buttoned on the person to be measured, see that it is well up under the arms, and that the back seam is in the centre of the body; then proceed to take the length of waist, say 18½ inches, and full length, 34 inches, starting from the collar seam, or where it is intended to be. Then from the same place, bring the measuring tape down in front of the right arm, under it and up the back to the starting point, drawing the tape moderately tight, and get what is commonly known as the first shoulder measure, say 27 inches. While the inch tape is in position under the arm, draw it with the same degree of tightness across the blade to the centre of the back, say 23 inches, (tax the mind for a moment with this measure, but do not write it down,) then reverse the tape and start from the centre of the back, and draw it across the blade and under the arm to the front of seye. Before writing down the distance, continue the tape up in front of the shoulder to the original starting point at the back of the neck, and see that it is 23 inches as first taken, and then write down the distance from the centre of the back to the front of the seye, (say 11½ inches, and the whole length 23 inches). It is well here to impress the mind of the student with the importance of this last measure. It is the only one taken that is applied directly to the Draft, as taken on the body. It is very simple and easily taken, and will correctly indicate the position of the customer, whether erect, medium or stooping.

The special measures given above are for the medium sized average form. Should the customer be erect, and his shoulders inclined back, the distance from the centre of the back to the front of the seye, would be less than half of the whole blade measure, say 11 inches, and the full length still be 23 inches, thus diminishing the quantity of cloth on the blade half an inch, and adding that quantity to the length of the shoulder; and should the customer possess a stooping form, the distance from the centre of the back to the front of the seye will be greater than half of the blade measure, say 12 inches, increasing the quantity across the

blade half an inch, and decreasing the length of the shoulder. To insure correctness, always take this measure twice, as above directed: first, from the neck down in front of the arm to the centre of back, and remember the quantity; then reverse the tape, and if the distance from the centre of the back to the front of the seye is not half the quantity first taken, scan the customer closely from a side view, and there will be no difficulty in deciding whether or not his form justifies the variations on the measure.

The length of the sleeve take in the usual way, from the centre of the back, between the shoulders to the elbow, 20½ inches, and to the waist, 32 inches, the arm being elevated, and the elbow placed in as straight a line as possible with the surface of the back. If it is too far forward, the measure taken will be too long, and if too far back, it will be too short.

By testing the above, it will be found a very easy matter to commit an error of from one to two inches in the length of sleeve, and probably account for the numerous alterations that have to be made in this particular. Next, take the breast and waist measures over the Vest, say 36 breast, and 31 waist. The measures so far taken will read 18½, 34, 27, 11½, 23, 20½, 32, 36, 31. For a Sack Coat, the measures would be precisely the same, except the length, which, for a medium height, would be 30 inches. For a Vest, in addition to the shoulder, blade, breast and waist measures already taken, start from socket-bone, and take a measure for the opening in front, full length, and to the hollow of the waist at the side, just above the hip-bone.

There is no good reason why a Coat should be cut by one system, and a Vest, for the same customer, by another, entirely different in its application and results. When the form of a customer varies from the general average (as described above in directions for taking measures), the system here published for cutting Vests will be appreciated, as it produces the exact form indicated by the measures.

Directions for taking Measures for Pants.

First, take outside length from top of the hip-bone to the knee, say 24 inches; continue to within one inch of the floor, say 42 inches. Next, the inside seam, from

the crotch to within one inch of the floor, 32 inches. (This measure should be taken with a square or wooden instrument, made for the purpose, with tape attached, and sold by all Trimming houses.) Next, the waist measure, 30 inches, and the hip (taken over the largest part) 36 inches, knee 17, and bottom, 17 inches. The whole measure so taken will read 24, 42, 32, 30, 36, 17, and 17.

Wooden Ruler.

The fine Wooden Ruler accompanying this work, contains all the Divisions used in Drafting Coats and Vests, and are designated as follows: Divisions of the shoulder measure are represented by letters A, B, C, D and E; the sizes ranging from 18 to 36. Divisions of the waist, by letter F; sizes ranging from 22 to 50. Divisions of the breast, by letters G, H, I and J; the sizes ranging from 24 to 48; and the Division of the seye measure, by letters K, L and M; the sizes ranging from 11 to 22. The Ruler is always placed in a position which presents the figures of the particular Division being used perpendicular to the eye; for example: when A and B are to be used, place the edge of the Ruler along the line A, with the end mark thus * resting at O, and mark on Divisions A and B the figure corresponding to the shoulder measure; and in using Divisions H and I, the end marked † will be toward the operator, in order to have the figures perpendicular to the eye, and so continue changing.

In addition to the above Divisions for all Coats and Vests, the Ruler contains thirds, fourths, inches, and a table showing the proportionate shoulder for every breast.

Directions for Drafting Frock or Dress Coats.

Diagram No. 1 (on Plate 1) shows the student how to Draft a Frock or Dress Coat by the measure he above learned how to take, and which reads as follows: Length of waist, 18½, full length, 34; shoulder, 27; blade (from the centre of back to front of seye) 11½, *continued to the back of neck*, 23; elbow (from the centre of back) 20½, full length of sleeve, 32; breast, 36; waist, 31. First, draw base line A, place the end of the Ruler marked thus * at O, and mark at 1 and 2 the shoulder measure, 27, on Divisions A and B.

From O to 3, is half of the breast measure, 18 inches. Draw lines B, C and D, at right angles with line A.

From 1 to 4, on line B, mark 36 on Division G, by placing the sign ↓ (*opposite 30 in Division H*), at 1.

From 2 to 5, on line C, mark 36 on Division H, by placing the end of Ruler, marked thus ↓, at 2.

From 5 to 6, mark 36 on Division I, by moving the Ruler a little forward from the last position, until the sign ↓ (*opposite 30 in Division H,*) is at 5.

From 3 to 7, mark 34 (waist) on Division F, by placing sign ↓ ¾ (*marked body Coats and Vests*), at 3. Draw line E, from 7 to 8, through 5, and line F, from 5 to O.

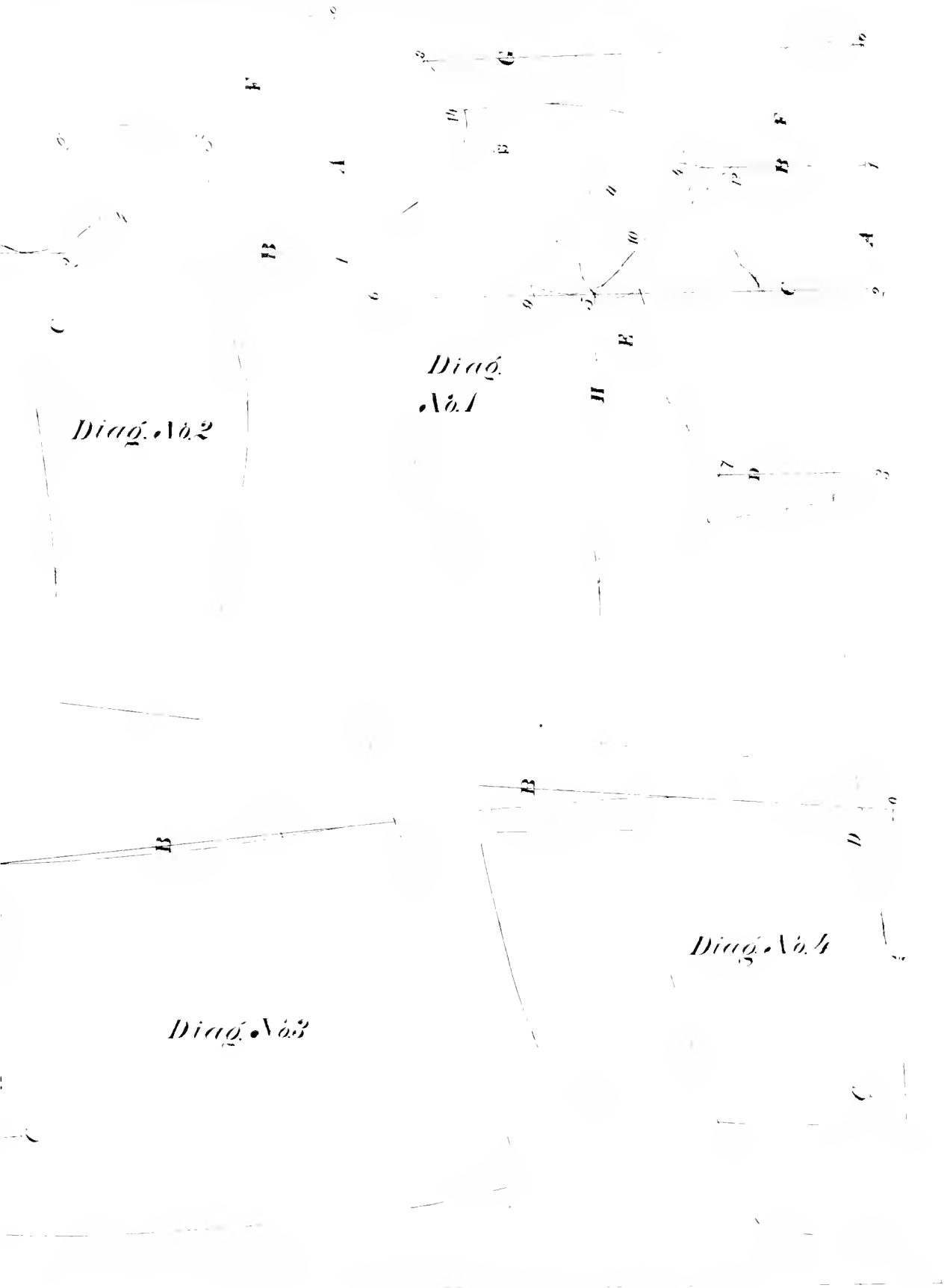
From 2 to 5, apply the blade measure as taken on the body from the centre of back to front of the seye, 11½. Hold the tape at 5 and continue the measure up line E, from 5 to 8, 23 inches, adding one-fourth or three-eighths of an inch as an allowance for seams, padding, &c. Draw line G from 8 to O. Now form shoulder and side seams of the back, as shown in the Diagram. Cut the back, and place it in position to form the shoulder, by placing line F on the back, directly on line G, and form the shoulder and neck gorge, the hollow part of the latter always touching line E, at 14.

From 8 to 13, mark 27 on Division C, by placing the end of the Ruler, marked thus §, at 8, and draw line from 13 for the pitch of the neck. To form the top of side body, place the back in the position from which it was cut, and place the finger on line C, where the back and side body join, and move the top in, (as shown in Diagram No. 9, on Plate 3) until the distance between the points O O, along the dotted line, is about the same as between B B (or from 2 to 5 in Diagram No. 1). A half-inch either way would be unimportant. Form the side seam and the seye. Apply the waist measure from 3, allowing for the quantity taken out at the side body, and complete the form of the body, as shown in the Diagram, to suit taste or Fashion.

It will be unnecessary to apply the shoulder or breast measure to the Draft, as the Ruler will produce them correctly in all cases.

Before attempting to Draft the sleeve or any other part of the Garment, the operator should practice this Draft, until he is perfectly familiar with the Ruler and

Plate. 1



Diag. No. 1

Diag. No. 2

Diag. No. 3

Diag. No. 4

Divisions, and can produce it correctly from memory, without reference to the above directions. The sleeve is Drafted in the position in which it is sewed to the body, and is Drafted to fit the seye, producing the correct length of back and fore-arm seam.

Directions for Drafting Sleeve.

First, measure the seye carefully, which in the size under consideration, will be 16 inches, (this should be done before the fore-part is cut.) Place a piece of paper large enough to shape the sleeve under the Draft, and place the back in its original position. Draw line H at right angles with line C. Turn the Ruler over and place ↓ ‖ at 5 parallel with line C, and mark from 5 to 9, 16 on Division K. Place ↓ ‖ at 5, parallel with line F, and from 5 to 10, mark 16 on Division L, and 16 on Division M, at 12. From 10 to 11, mark 16 on Division L, by placing sign ↓ ‖ at 10, and form the sleeve head as laid down in Diagram No. 1. The top of the sleeve at 12 must always touch line F, and the fore-arm seam at 9 be raised half an inch above line C. Use lead or hard chalk for forming the sleeve; and by a slight pressure, the lines of the sleeve will be indented on the paper placed under the Draft. If the operator prefers to Draft the sleeve separate from the body, he can do so by studying Diagram No. 2, and Drafting as follows: Draw line A, (from O to 1, is the same distance as O to 2 in Diagram No. 1.) Draw line B at right angles with line A, (from 1 to 2, is the same distance as from 2 to 5 in Diagram No. 1.) Draw lines F and C. From 2 to 3, mark 16 on Division K, by placing sign ↓ at 2. From 2 to 4, mark 16 on Division L, and 16 on Division M, at 5. From 4 to 6, mark 16 on Division L, by placing sign ↓ on 4. Form the remainder of the sleeve as laid down in Diagram No. 2. The hollow of the under sleeve at top, should not extend below lines F and B.

To Draft Skirt for a Frock Coat.

Draw line A, (see Diagram No. 3 on Plate 1.) Lay the corner of the square at O, and raise the long arm until the 12 inch arm is one inch from line A, (as shown by dotted lines at C,) and draw line B. Then

place the side body in position as shown, and form the plait to suit the curve of the side seam and the customer's hips. It is desirable that the skirt of a Frock Coat hang as close to the thighs as possible, and in order to produce that result, the top of the skirt should be cut nearly or quite straight. A little round will be advantageous when the hips of the customer are above the average size. One inch fullness at least should be sewed in the waist seam over the hips, and carefully pressed out.

To Draft Dress or Morning Coat Skirts.

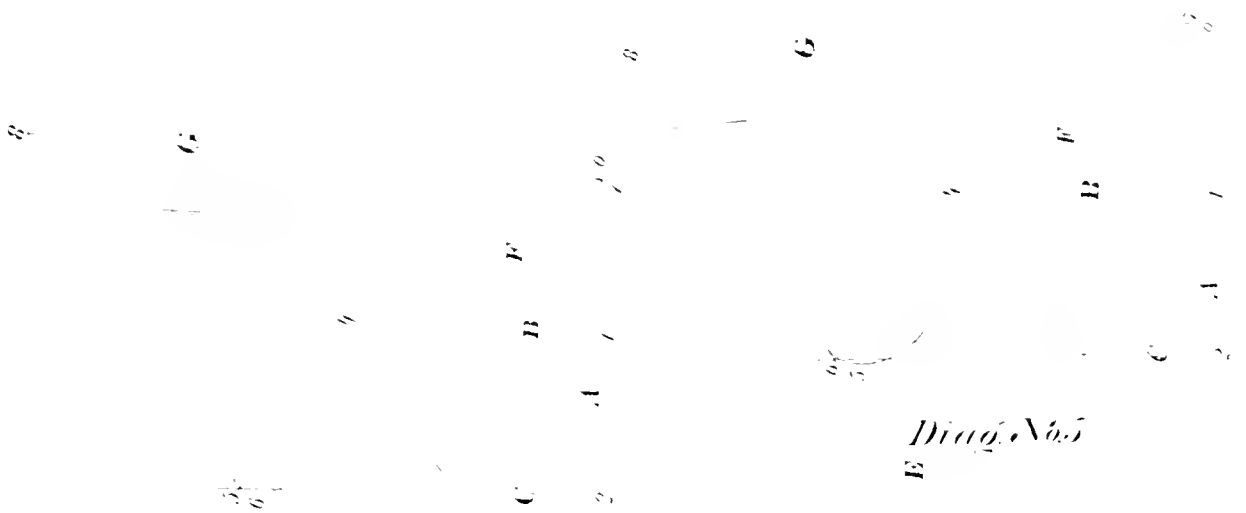
SEE DIAGRAM 4.

Form lines A and B, as in Diagram No. 3. That which is front in the Frock Coat, becomes plait in the Dress and Morning Coat skirt. Form the plait line D, commencing one inch from O on line B, to suit the curve of the side seam, &c., and adapt the front of the skirt to the front of the fore-part.

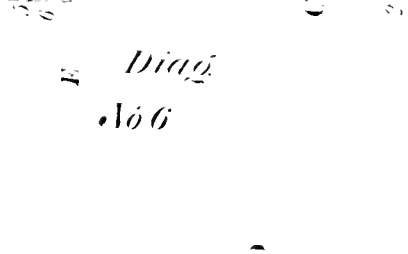
The measures and their applications deal thus far with a well proportioned form of medium size and height, and to this extent, many of the Division Systems published are equal to mine; but in most of them, the pupil is here left with a few vague directions for lengthening or shortening the back, or changing the location of the shoulder point, &c., to conform to equally vague and uncertain measures taken from imaginary starting points, in themselves unreliable and impracticable.

In preparing this System for publication, it has been my aim to perfect it to such a degree that it will be quite as easy to Draft a good fitting Garment for an ill-shaped customer, as for one possessing the proportions of a perfect model. The Cutter's task would be an easy one, if all his customers conformed in shape to the above measures; but unfortunately, the great majority of them deviate from it. It is a very common thing to find a man measuring proportionally the same in breast, waist and shoulder (as described and illustrated by Diagram No. 1 on Plate 1), who will stoop forward, and require a greater quantity of cloth across the blade and a shorter shoulder, or, on account of extra erectness, require less cloth on the blade and a longer shoulder. The following measures taken,

Plate 2

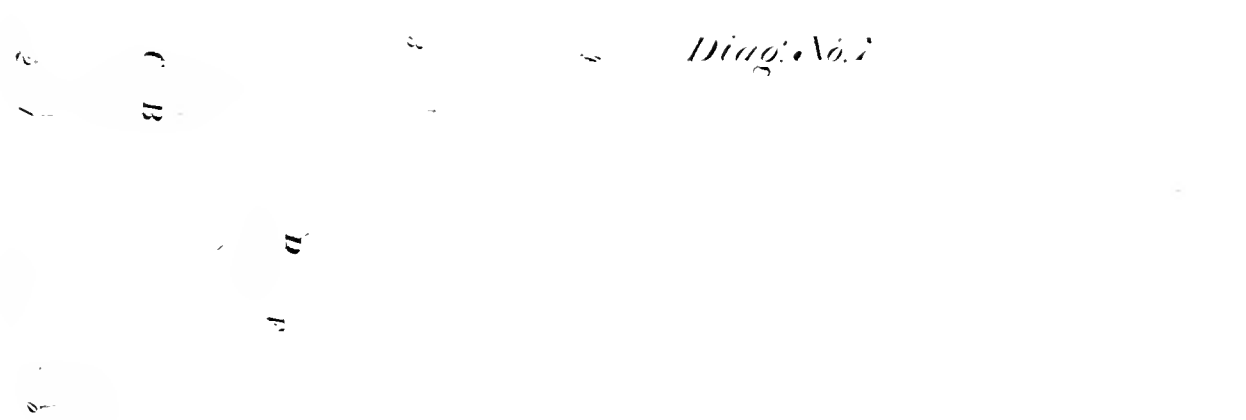


Diag.ª Nº5



Diag.ª Nº6

Diag.ª Nº8



Diag.ª Nº7

as described, indicate the three forms mentioned:

1st. Form of good proportions: 18½, 34, 27, 11½, 23, 20½, 32, 36, 31.

2d. Stooping form: 18½, 34, 27, 12½, 23, 20½, 32, 36, 31.

3d. Extra erect form: 18½, 34, 27, 10½, 23, 20½, 32, 36, 31.

It will be observed that all the measures are precisely the same, except the first half of the blade measure, or that portion which applies from the centre of the back to the front of the seye. On plate 2, I have prepared Diagram No. 5 by the second measure, which applies to the

Stooping Form.

Draw base line A. From O to 1 and 2, are 27 on Divisions A and B.

From O to 3, is half of the breast measure. Draw lines B, C and D, at right angles with line A.

From 1 to 4, on line B, is 36 on Division G.

From 2 to 5, on line C, is 36 on Division H.

From 3 to 9, on line D, is 31 on Division F.

Now apply the blade measure from 2 to 6, which is 12½ inches, (one inch more than in Diagram No. 1, and one inch greater than the distance given by the Ruler from 2 to 5). Dot on line C, half the distance between 5 and 6, which is half an inch. At the top of line A, mark in half an inch, as shown from O to 7, rounding the back seam slightly. Draw line F from the dot, between 5 and 6, to 7 (instead of O, as in Diagram No. 1), and line E from 9, through the dot between 5 and 6, to 8, and continue the blade measure from 6 to 8, 23 inches, and draw line G from 8 to 7, and form the shoulder and neck gorge, as directed in Diagram No. 1.

It will be noticed that half the variations between the Ruler and the first-half of the blade measure, at 5 and 6, is used, which carries line E, at 8, forward, and the other half at top of the back, moving the back seam at top forward and raising it half an inch. Thus lengthening the back, shortening the shoulder, and moving shoulder point and point of seye forward. Changes necessary for a Stooping Figure.

Just the opposite of the above will be found in Diagram No. 6, which is Drafted

by the third measure above, and applies to the

Extra Erect Form.

Draw base line A. From O to 1 and 2, are 27, on Divisions A and B.

From O to 3, is half the breast measure. Draw lines B, C and D, at right angles with line A.

From 1 to 4, is 36 on Division G.

From 2 to 5, is 36 on Division H.

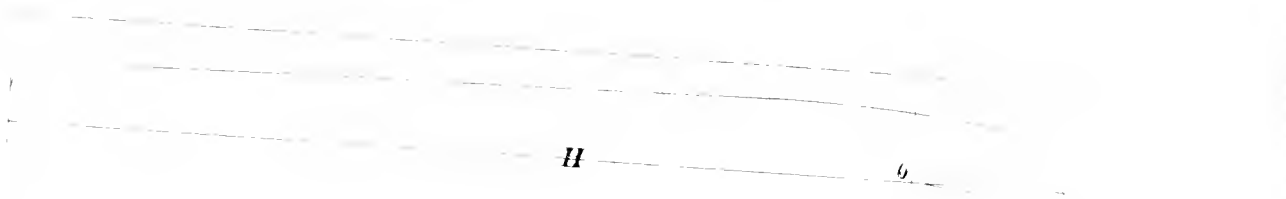
From 3 to 9, is 31 on Division F.

Apply the first half of the blade measure from 2 to 6, which is 10½ inches, (one inch less than the quantity given by the Ruler from 2 to 5.) Dot on line C, half the distance between 5 and 6, which is half an inch. Drop the top of the back half an inch, and mark out half an inch (as shown) from O to 7, and hollow the back seam slightly. Draw line F from the dot, between 5 and 6, to 7, instead of O, and line E from 9, through the dot, between 5 and 6, to 8. Continue the blade measure from 6 to 8, 23 inches. Draw line G, and form shoulder and neck gorge, as already directed. Thus lengthening the shoulder, moving the shoulder point and seye further back, and shortening the back. Changes requisite for the Extra Erect Figure.

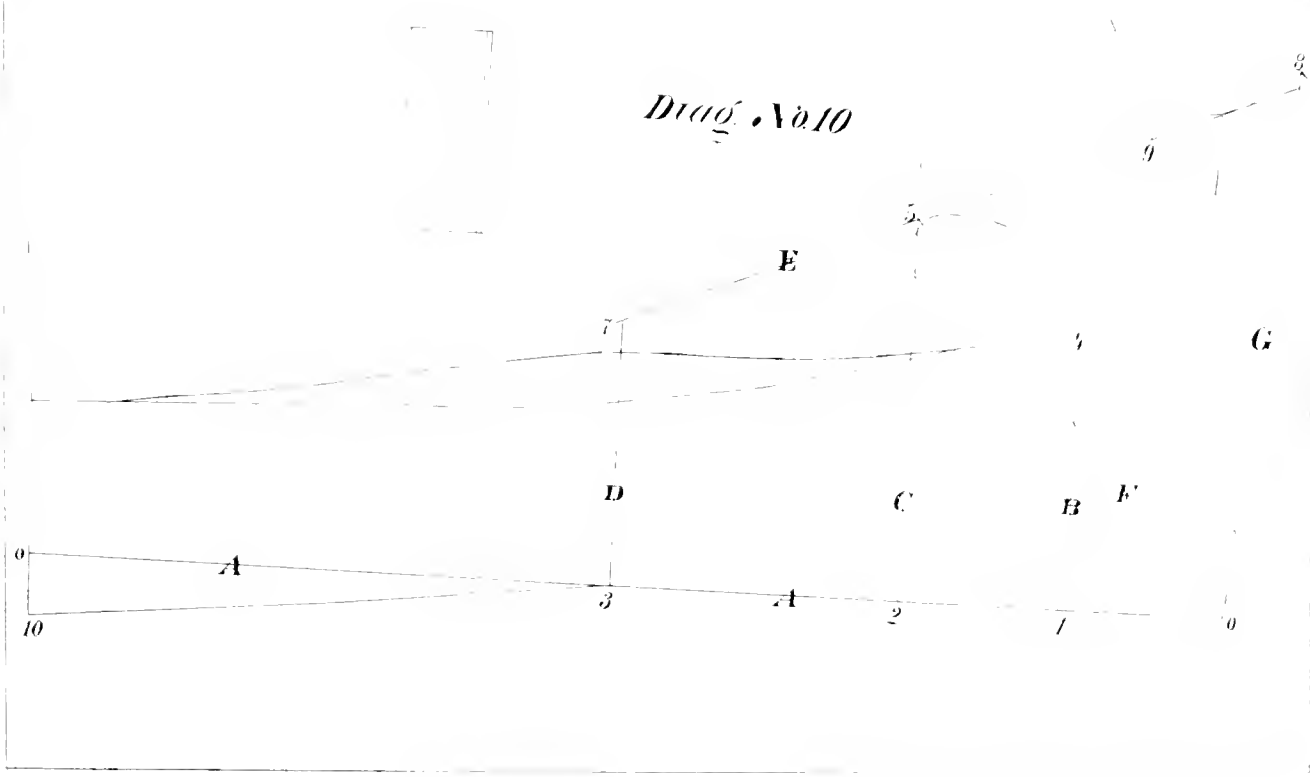
During my practice at the Cutting Counter, I have failed to discover the necessity for drawing in the bottom of the side seam in order to fit a stooping form, or extending it out to fit an extra erect figure. All the changes in Drafting, necessary to fit either of the two forms designated, must be made above line C. Diagram 7, is a combination of Diagram No. 1, on Plate 1, and Diagrams No. 5 and 6, on Plate 2, conforming to the three measures recorded above, and showing the changes produced by a variation in the first-half of the blade measure (or the distance from the centre of back to the front of seye). No. 1, for the well-proportioned form. No. 5, for the stooping figure, has the shoulder point forward and short, and the back lengthened and drawn in at the top. No. 6, for the extra erect, with the shoulder extended back and lengthened, the back shortened, and the back seam hollowed slightly from the top. The position of the back and side body at the waist remaining in all cases the same.

Plate. 3

Diag. No. 9



Diag. No. 10



Wrinkles across the top of Side Body.

This is a fault found in many Coats, and can be attributed to more than one cause; but, in a great majority of cases, they are created by the upper part of the Coat being Drafted too open, (see Diagram No. 9, on Plate 3.) When Drafting after the back is cut, place the fingers on the side seam of back, where it intersects line C, and move the top in until the distance between O O (along the dotted line) is about the same as the measure calls for between B B, from the centre of back to the point of seye.

It is not important that it be precisely the same, half an inch either way will not injure the Coat; but should the points O O be too close together, or less than between B B, the Coat will be apt to swing away from the waist, and one inch or more too long will, when strained together on the form, cause unsightly wrinkles across the upper part of the side body.

Directions for Drafting Vests.

There is no reason why a Coat should be Drafted by one system, and a Vest by another entirely different; and I have adapted my Divisions for Drafting Vests in precisely the same manner, producing the same form to fit the customer as required in the Coat.

Turn to Plate 4, Diagram No. 11. Draw base line A.

From O to 1 and 2, are 27 on Divisions A and B.

From O to 3, is half of breast measure, 18 inches. Draw lines B, C and D.

From 1 to 4, is 36 on Division J.

From 2 to 5, is 35 on Division H.

From 5 to 6, is 36 on Division I, (by moving the Ruler forward as directed for Diagram No. 1.)

From 3 to 7, is 31 on Division F from J/ ¼. Draw line E from 7 to 8 through 5, and line F from 5 to O. Hold the tape at 8, and sweep curve H from 7. Apply the waist measure from 3 on line D, and curve H. Half of the waist, 15½ inches, and in all cases, add two inches to half the waist measure, making it 17½, instead of 15½ inches, and form the front of Vest, from 6, to suit the form of the customer. I will not stipulate the precise position of the seam under the arm, but suggest that the back be cut full one-fourth of the breast and waist in width.

Cut the back and lay line F on line G, as directed in Drafting Coats, and form the shoulder and the remainder of the Vest, as shown in the Diagram.

When the blade measure varies from the well-proportioned form, and indicates the stooping or extra erect figure, apply the measures in the same manner as directed in Diagrams No. 5 and 6, on Plate 2, (except that it is not necessary to add anything to the blade measure at 8, as directed in Drafting Coats.)

Diagram No. 12, on Plate 4, is a section of Diagram No. 11, showing the form of a low cut Vest. After the customer has been measured for a Coat, the only additional measure needed for a Vest is for the opening in front, full length, and the hollow part of the waist at the hips.

Directions for Drafting Sack Coats.

Turn to Diagram No. 13, on plate 4. Draw base line A. From O to 1 and 2, mark 27 on Divisions D and E, starting from the end of Ruler, marked thus ¶.

From O to 3, is half of the breast measure. Draw lines B, C and D.

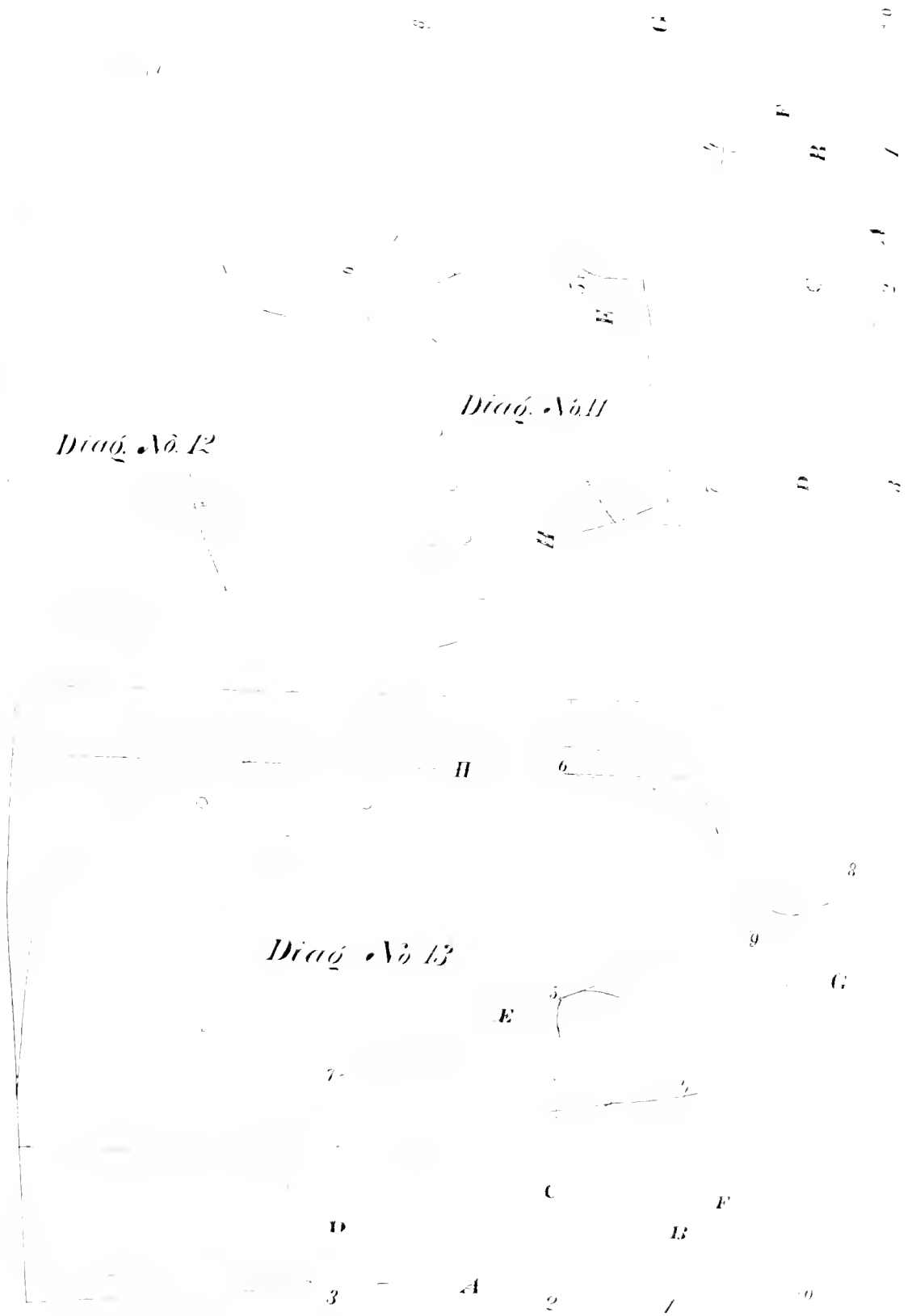
From 1 to 4, is 36 on Division G.

From 2 to 5, is 36 on Division H.

From 5 to 6, is 36 on Division I (the last three Divisions being applied as directed for Diagram No. 1.)

From 3 to 7, is 31 on Division F, from the end of the Ruler, marked thus §. Apply the blade measure as already directed in Diagram No. 1. 11½, 23, adding one-quarter to ⅜ of an inch. Draw line E from 7, through 5 to 8, and Line F, from 5 to O. Add from one to one and a half inches at the bottom of back (as shown in the Diagram, from the small part of the waist to the bottom.) From 8 to 9, is 27 on Division C. Draw line for the pitch of neck. Form and cut the back, and place O at 8, with line F resting on line G, and form the shoulder, neck, gorge and scye. For a double breasted Sack, draw line H, from 6, at right angles from line C, and add for the front, according to the style and taste. Draft the sleeve in the same manner and position, as directed for Diagram No. 1. When the blade measure indicates a change in the form of the customer, apply them in the same manner as directed for Diagrams 5 and 6, and the shape necessary to fit the

Plate, 4



stooping or erect figure, will be produced in the Draft.

Directions for Drafting Over-Sack.

It is quite a common practice among Tailors to take the breast and waist measure over a Coat when measuring for an Over-Sack, or Surtout, whether the Coat measured over is thick or thin. It is a bad habit, as the measures so obtained are very uncertain, for it is preferable to take a neat measure over the Vest, and make the necessary additions. The measure already taken, 18½, 34, 27, 11½, 23, 20½, 32, 36, 31, should be increased thus: 18½, 34, 28½, 12, 24¼, 21, 33, 38, 33, for an Over-Coat intended to be worn over Garments of medium thickness. When the Coat is required loose, or for wear over very thick under Garments, add three inches to the breast and waist measure, and in the same proportions, to the shoulder and blade measure. Now let us proceed to Draft Over-Sack from the above enlarged measure, as shown in Diagram No. 10, on Plate 3.

Draw base line A A. From O to 1 and 2, are 28½ on Divisions D and E, commencing at end of Ruler, marked thus ¶.

From O to 3, is 19 inches (half of breast). Draw lines B, C and D.

From 1 to 4, is 38 on Division G.

From 2 to 5, is 38 on Division H.

From 5 to 6, is 38 on Division I.

From 3 to 7, is 33 on Divison F, starting from end of Ruler, marked thus §. Apply the blade measure from 2 to 5, 12, and continue the same up line E, from 5 to 8. Draw line E, from 7 through 5 to 8, and line F from 5 to O, and line G from 8 to O.

From 8 to 9, is 28½ on Division C, starting from end of Ruler, marked thus §.

From line A at 10, add two inches for spring, and form and cut the back. Place O at 8, with line F resting on line G, and form shoulder, neck gorge and seye. Draw line H from 6, at right angles with line C, and form the front of Coat, according to taste or the prevailing style. When the customer is of extra erect or stooping figure, the blade measure will indicate the necessary change, and must be applied in precisely the same manner as already explained for Diagrams 5 and 6, on Plate 2, except from 5 to 8, to which add three-fourths of an inch instead of one-fourth or

three-eighths, as directed for Under-Coats. Measure the scye with care, and Draft the sleeve in the same manner as for Diagram, No. 1.

The Surtout Over-Coat

Is Drafted by the enlarged Frock Coat measure, as already explained, and in the same manner as the Frock Coat described in Diagram No. 1, Plate 1.

Directions for Drafting the Inverness or Cape Coat.

The Diagrams for Drafting the above style of Coat are designed by thirds and fourths of the breast measure (taken over the Vest).

To Draft back, as delineated in Diagram No. 14, on Plate 5. Draw base line A A.

From O to 1, is one-fourth.

From 1 to 2, is two-thirds. Draw lines B, C and D.

From O to 4, on line D, is one-sixth.

From 4 to 7, is three-fourths of an inch.

From 1 to 3, is one-half.

From 2 to 5, is two-thirds.

From 5 to 6, is one-sixth.

Form the lines of the back, as seen in the Diagram. To Draft the fore-part and Cape, draw line A A, as in Diagram No. 15, Plate 5, and line B, at right angles with line A.

From O to 9, is one-sixteenth.

From 9 to 1, is one-fourth.

From 1 to 2, is one-fourth.

From 2 to 3, is one-fourth.

From O to 5, is one-twelfth.

From 1 to 4, is one-twelfth. Draw line E, at right angles with line B.

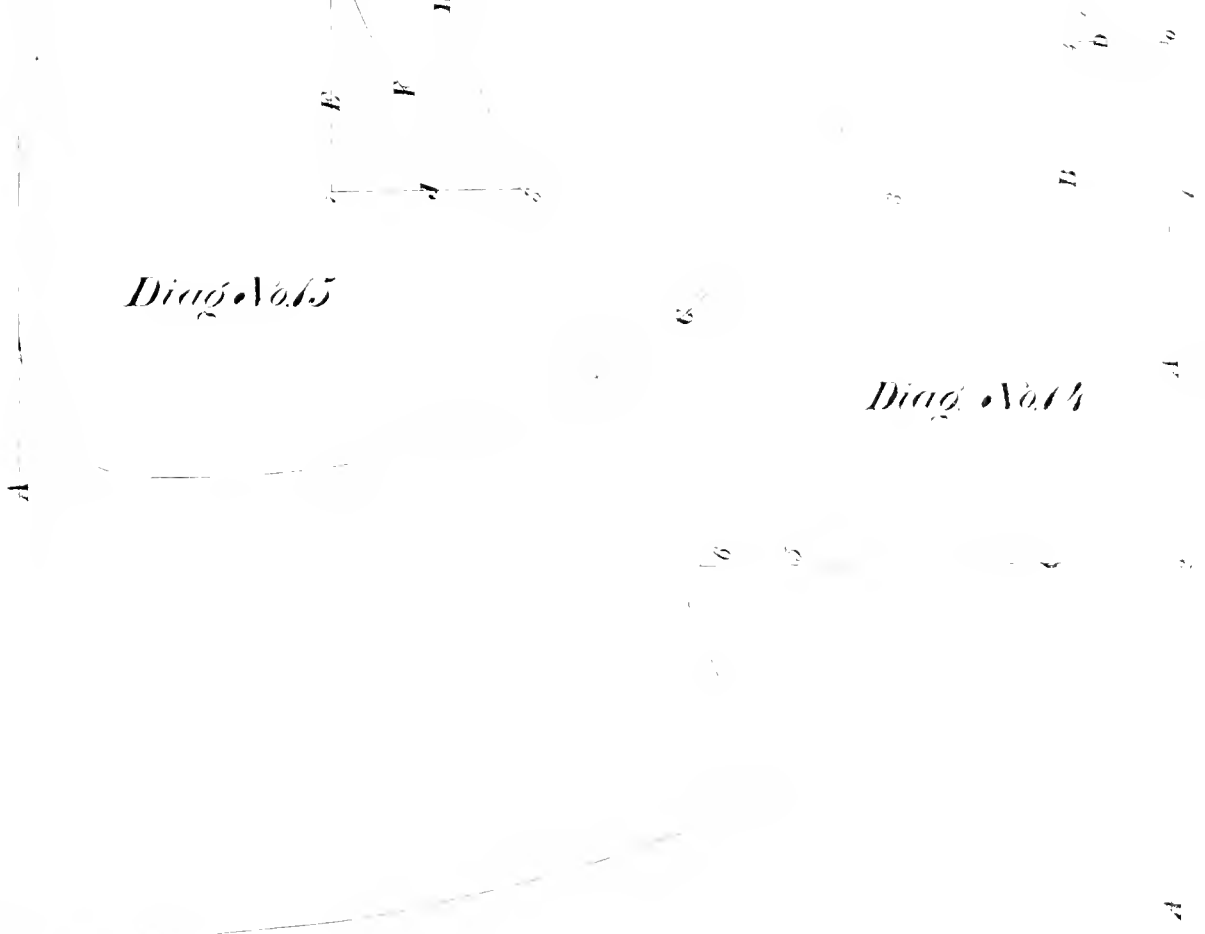
From 2 to 6, is one-third.

From 6 to 7, is one-half. Draw line J, at right angles with line E.

From 7 to 8, is one-third. Draw line D from 2 through 8, and line C from 4 through 3. Form curve F, neck gorge and line H, for front of Cape, which is Drafted with the fore-part, as shown in the Diagram. After applying the measure for the length of Cape, sweep line G from 4. The measures necessary for the Cape Coat are: first, length from the socket-bone; second, from same place, directly over the shoulder, and down the arm to the knuckles (for length of Cape); third, the size of the neck over the Under Coat collar, and the

Plate. 5

Diag. No. 15



Diag. No. 14

breast measure. In most all cases, the Inverness Coat is made without sleeves, but when designed chiefly for traveling purposes, where continuous exposure to cold is anticipated, sleeves add very materially to the comfort of the Garment. Accordingly, I have designed a sleeve, as shown by Diagram No. 8, on Plate 2, which will prove a valuable accompaniment to the above style of Coat.

To Draft Sleeve.

First, draw base line A. From O to 1, is one-half.

From 1 to 2, is one-twelfth. Draw lines B and C.

From 2 to 3, is two-thirds.

From 3 to 4, is one-fourth. Draw line D from 4 to O. Form the top of sleeve, as delineated in the Diagram, adding one-twelfth at F from line D, to form the round part of the sleeve. Apply the measure to obtain the correct length of Sleeve, and make the width of bottom about 9 inches. As it is rather an uncommon thing to put Sleeves in Inverness Coats, the following Directions for Sewing in the Sleeve may prove acceptable: O, the starting point of the Sleeve, joins to the fore-part on the top of shoulder O at the seam, and the round part of the sleeve F sews to curved line F on the fore-part. The hollow, or flat part of the Sleeve, joins to the Cape and back, down to 6, bringing together, when completed, 5 on the fore-part, 4 on the Sleeve, and 6 on the back.

Exact Measurement System.

Very much has been said and written upon the relative merits of Divisional and Exact Measurement Systems. Both have zealous advocates among the intelligent portion of the trade, and both are valuable. I believe all thinkers on the subject will agree, that to the moderately experienced Cutter, of average ability, the Divisional System is the best. The number of measures are less, more simple and easily taken. The Cutter is less liable to commit errors in manipulating them than he is in the Exact Measurement process (which requires greater skill and much practice in measuring), while to an expert, the latter System is preferable. I believe

the theory correct, and when intelligently practiced, that it overcomes objectionable features in Divisional Systems, and produces better fitting and more comfortable Garments to the wearer. How far a Cutter must be advanced in his profession before he can safely be deemed an expert, I will not pretend to state, as opinions are sure to differ widely regarding the matter, and my views may not be appreciated. One thing is certain, a great deal depends upon the ambition and application of the Cutter, in the settling of the question individually. I will take the liberty of admonishing my readers to well and carefully practice the taking of measures designed to be directly applied to cloth as taken on the body, for every inaccuracy will appear in the Garment when completed. In publishing the accompanying Exact Measurement System, I believe I am offering to the Trade the best and most practical method of the kind ever invented. It owes its origin entirely to myself, and is simple in principle and application. It has been, and is now being used in my Fifth Avenue Establishment, which has afforded ample opportunity for thoroughly testing its merits, and the result has been most satisfactory. Hence, I offer it to the Trade, feeling confident that it will supply a want long felt, in giving them a method for fitting equally well forms of correct proportions and ill-shaped figures.

Directions for Measuring for the New Plumb System.

First, take the full length of waist and skirt, and then length of sleeve, from the centre of the back, in the usual way, over a Coat. (Turn to Plate 8, Figure or Diagram No. 23.) Remove the Coat, and mark at the side of the neck on the Vest, as shown on the Figure at A, the exact location you desire the shoulder point distant from the socket-bone, for width of back. In the medium sizes, two and three-quarters to three inches. (The distance in sizes ranging from 34 to 45 inches, breast measure will be from 2½ to 3¼ inches). See that the seam of the Vest back is in the centre of the body, and the Vest drawn in moderately close at the waist by the strap and buckle. Now place the Plumb line in position, directly in front of the shoulder (as represented on the figure.) By drawing the line over

the shoulder, and slipping it up and down a few times, the weight attached to the line will draw it to the desired place in front of the arm. Request your customer to remain quiet until the weight is still, then mark the Vest perpendicular with the line at B, and at the hollow of waist at C. Cross this latter mark just over the hip in the most hollow part of the waist. Lay aside the Plumb line and proceed with the inch tape, to take the following measures *very carefully*, keeping the customer in as near the same position as possible:

From socket-bone to the mark at the side of the neck A, say 3 inches. Then place end of the tape at the mark A, and measure down in front of the arm, and with the fingers of the right hand placed under the arm, ascertain the correct depth of seye, say 9½ inches, and continue the measure to the mark at the hollow of the waist C, say 18 inches.

From the same point, A, draw the measure back of the arm in as straight a line as possible, over the shoulder blade, down to C, at waist (represented on the Figure by the dotted line), say 19½ inches. Place the end of the tape in the centre of the back, opposite the bottom of the seye, and measure forward to the front of the seye (the mark at B), say 11½ inches, and continue the measure straight across the breast to the centre of the body (or as near it as can be determined by the eye), at D, say 19 inches. Place the end of the tape in the centre of the back at the hollow part of the waist, and measure forward to the mark at C, say 8 inches, and continue forward to the centre of the body at E, say 16 inches. These last two measures must be taken easy. The distance from the centre of the back through B to D, should be about one inch greater than half the breast measure, when taken around the body. This is given as a rule, that the operator may be guarded against taking them too tight. It would be better, probably, to take the breast and waist measure around the body before measuring from the centre of the back to the front, and taxing the mind with the distance, which, say is 36 inches breast, and 32 waist. Half the breast would be 18 inches; while I give the distance as 19 from the back seam, through B to D. The measure as above taken will read 19, 54, 20½, 32, 3, 9½, 18, 19½, 11½, 19, 8, 16, 36, 32.

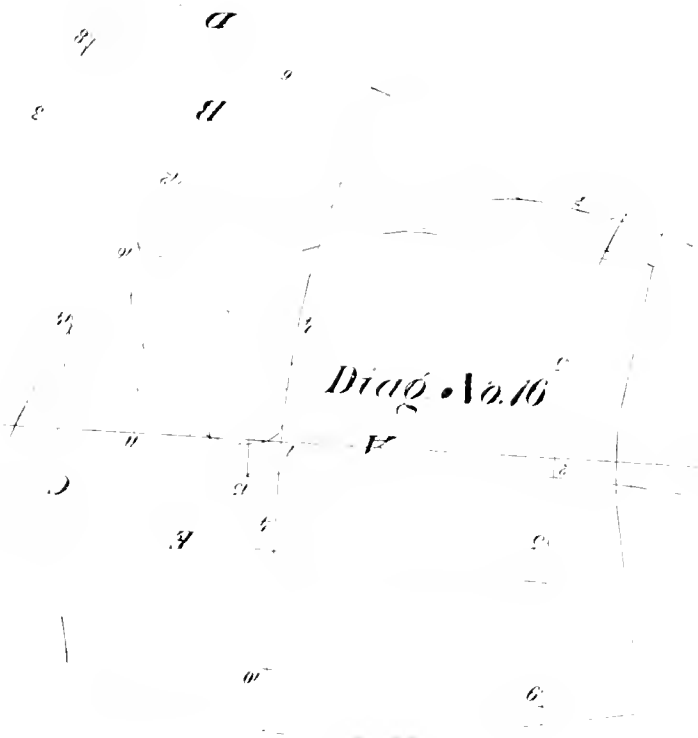
Directions for Drafting Body Coats,

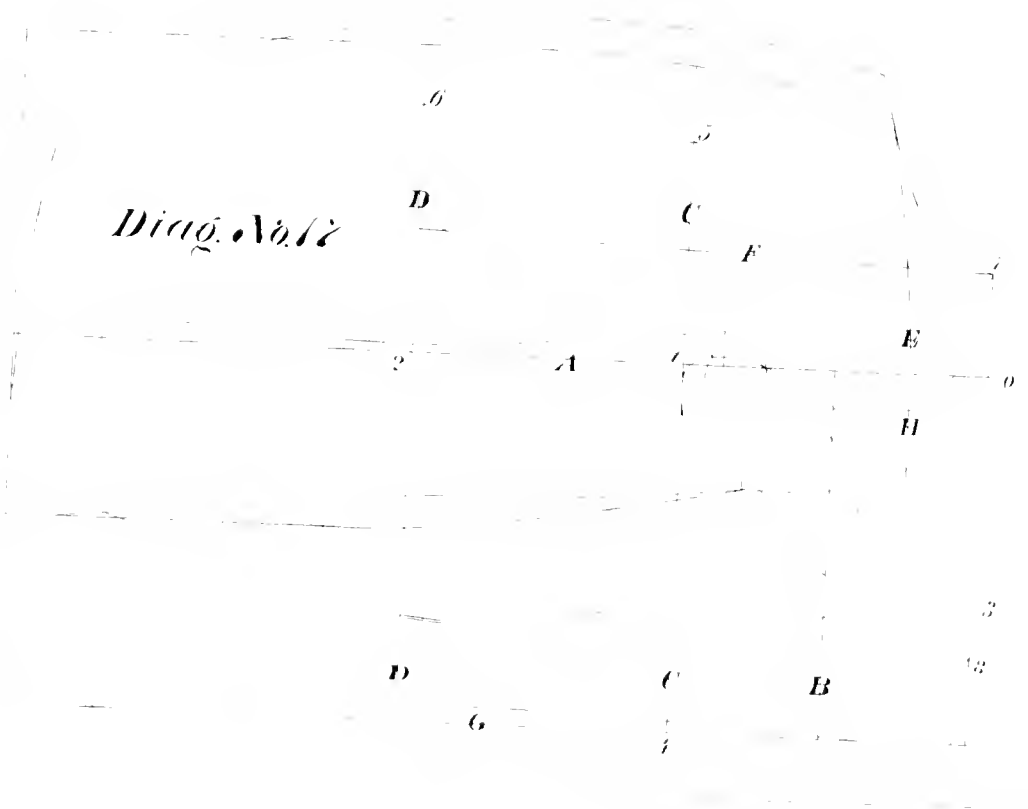
BY THE EXACT MEASUREMENT SYSTEM.

SEE DIAGRAM No. 16, ON PLATE 6.

The measures are applied to the Draft in precisely the same manner as taken on the body. First, draw line A A, (which represents the Plumb line in the Draft.) From O to 1, is 9½ inches, as taken on the body, which divide into four equal parts as shown, and the lower fourth divide into two parts, as in the Diagram at 15. From O to 2, is 4 8 inches, (as taken from A to C on the body.) From 2, measure up in the direction of the top of the back, 19½ inches, (as taken from A, back of the arm to C, at waist.) Form the sweep 3 from 2, as shown in the Diagram. Measure back from 1 in a straight line, 11½ inches, (blade measure,) and in a like manner from 2, back 8 inches. Form sweep 6 from 1, and sweep 7 from 2. Place the tape or a straight edge to touch sweeps 6 and 7, as shown by the dotted line, and mark where it intersects line A, at the lower O, and from this point, sweep lines 5, 4, B, C, and the line between O and 13. Draw line D, for back seam through the intersection of sweeps 4 and 6, to a point a half or three-fourths of an inch back of sweep 7, to make allowance for what will be taken out between the back and side body, at the hollow part of the waist, as represented in the Diagram. Measure forward from line D, on sweep 3, three inches for width of back at the top, as shown at 8. Square it with line D. Drop the centre of the back about half an inch, in order to form the curve of the neck; but in no case change the point located at 8. Mark length of waist 19 inches, and form the back to suit the taste or fashion. Continue lines 4 and 5 forward, at right angles with line A. Apply the blade measure as taken on the body from sweep 6 through 1, (11½ inches) forward to 10, (19 inches,) and waist measure from sweep 7 through 2, (8 inches) forward to 9, (16 inches.) Divide the space between 2 and 9, and between 1 and 10, with accuracy, into equal parts, and draw line E to 13, which will, in all cases, give the correct pitch of the shoulder point. Apply half of the breast measure from sweep 6, along line 4, 18 inches, and add 2½ inches for front of Coat. If the shoulder seam is formed as shown in the Diagram,

Plate. 6





from 13 to 14, on the fore-part, and 8 to 16 on the back, point 14 touching the line C, and point 16 being raised above line B, a half or three-fourths of an inch, the Coat will fit the shoulders without wadding. When a square or high shoulder is desired, raise point 14 above line C, a half to one inch, and add in making an equivalent in wadding. It is desirable that this be done when the shoulders of the customer are inclined to droop. In fact, it is the duty of the Cutter to detect and improve all the imperfections of his customers. In this lies the true art of his calling.

Form the remaining lines of the fore-part as delineated in the Diagram, and before cutting it, place a piece of paper large enough for out-line of sleeve under the Draft, in the position shown, and observe the

Directions for Drafting Sleeve.

First, measure with care the seye, (say 16 inches,) and from 11 to 12, on line B, mark half of the seye measure, (say 8 inches,) and form the top sleeve. Before doing so, let me remark that the round for the top of the upper sleeve must extend as far above line B, as the back is drawn at 16; and if the point 14 has been raised above line C, on the fore-part, to increase the height of the shoulder, an additional length will be required to the top sleeve, equal to the raise of point 14, above line C.

The effect of many finely cut shoulders are spoiled by the shortness of the top sleeve, which should in all cases be raised or increased in length, equal to the addition in the Draft of the fore-part for producing square shoulders. By observing and practicing the above, the unsightly dragging about the shoulders, caused by a short top sleeve, will be obviated. Extend the front seam of the sleeve forward of line A, at 15, as far as 15 is above line 4, and complete the Draft for sleeve, as shown in Diagram, bringing the front seam at the hand, as far forward of line A as it is at 15.

For Drafting Skirt,

SEE DIAGRAM 3 CALCULATE AS

AND FOLLOW THE DIRECTIONS GIVEN

Directions for Drafting Sack Coat,

BY THE EXACT MEASUREMENT SYSTEM.

The same measures are taken in precisely the same manner and order as for Body Coats. Draw base line A.

From O to 1, is 9½ inches (as taken on the body), which divide into four equal parts, as directed for Diagram No. 16.

From O to 2, is 18 inches (as taken on the body from A to C).

From 2, measure up in the direction of the top of the back, 19½ inches (as taken on the body from A at side of neck, back of the arm to C, at waist), and form sweep 3, for the top of back from 2. Draw lines B, C, D and H, at right angles with line A. Sweep line E for pitch of the neck, from the bottom of Coat line A.

Measure back from 1 on line C, 11½ inches, to 4, and draw line G at right angles with line C. Continue line G upward as high as sweep 3. Measure forward from line G on sweep 3, three inches, and form the top of back. Continue lines C and D forward. Apply the measures from 4 through 1 (11½ inches), forward to 5 (19 inches), and place 8 on the inch tape at 2, and measure forward of line A on line C to 6, (16 inches). Divide the space between 4 and 5, and 2 and 6, into two equal parts, and draw line F to 7, for locating the front shoulder point. Apply half the breast measure from 4, adding two and a half inches, and form the lines of the Coat, as in Diagram No. 17. When extra square shoulders are desired, see directions for Diagram No. 16. Form the sleeve in the same manner as directed for Diagram 15.

For Drafting Sack and Over Coats,

BY THE EXACT MEASUREMENT SYSTEM

Use same measure as taken for Body Coat, as follows (neat measure): 3, 9½, 18, 19½, 11½, 19, 8, 16, 36, 32, enlarged to 3¼, 10¼, 18, 19½, 12, 20, 8½, 17, 38, 34. The third and fourth measure need not be changed, as they are both taken from the side of the neck to the hollow of the waist, above the hip, as balance measures, and have no reference to size or length.

Plate. 7

For Drafting Over-Sack,

BY THE EXACT MEASUREMENT SYSTEM.

Use the enlarged measure, same as for Surtouts, and follow the directions for Diagram No. 17, on Plate 6.

Directions for Drafting Trowsers.

Use the measure already taken, which reads 24, 42, 32, 30, 36, 17, 17. First, draw line O O.

From O to 1, is 24 inches (from hip to knee).

From O to 2, is 42 inches (full length).

From 2 to 3, is 32 inches, (length of inside seam). Draw lines A, B and C, at right angles with line O O.

From 3 to 4, is one-fourth (of hip measure).

From 4 to 5, is one-fourth; and from 5 to 6, one-eighth. Draw front balance line D carefully, at right angles with line A.

From 7 to 8, is three inches (in all cases, large or small).

From 8 to 9, is one inch.

From 9 to 10, is seven inches. Draw line E from 8 to 6, and line F from 8 through 5 to 11, and line G from 10 to within half an inch of line O, at 3.

From 11 to 12, is one-fourth of the waist measure. Form the hip, from 12 to 3, and the inside seam, from the ankle to 9.

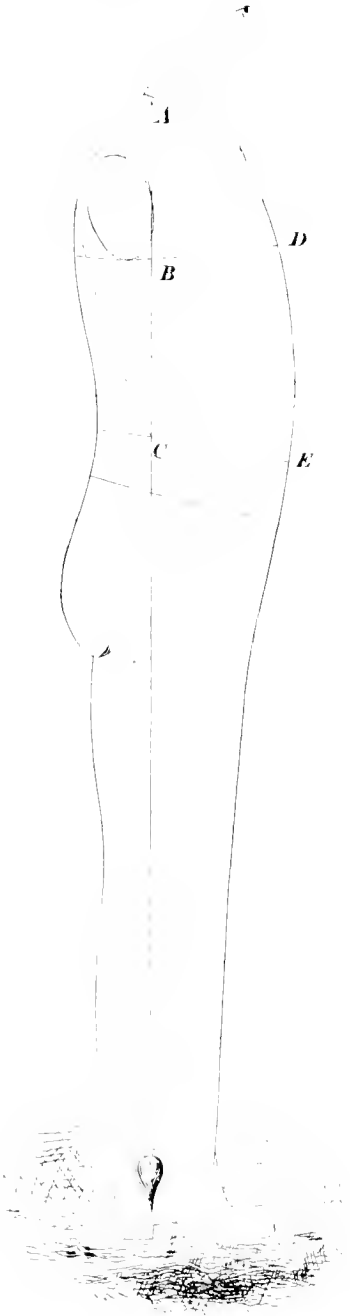
When cutting for a small waisted customer, drop the front a little at 11, and raise it for a large corpulent man. Now comes one of the most important points in Trowsers cutting, "The Dress." Upon this, as upon every other subject, there are many conflicting opinions. Mine, of course, to me, seem reasonable. The Sack which contains the testicles and the penis, is suspended in the centre of the body, below the abdomen; the latter measuring at least 1½ inches at the root, where it joins on to the body, and the former requiring considerable space in width just below the crotch, and it is necessary that provisions be made in order to secure a good clean fit. If Trowsers that are intended to fit at all close, be cut without dress, and placed on the body, the seam down the front must in consequence be on one side of the penis, which removes it from the centre at least three-fourths of

an inch, and causes a tightness on the dress and a fullness on the undress side. I provide a remedy for this ugly fault, by cutting away the undress side at least three-fourths of an inch (as represented by the dotted line), and adding the same quantity to the dress side. Or, in other words, cutting the front seam three-fourths of an inch from the centre, and leaving the width of the dress side at 6, at least one inch and a half greater than the undress side. After forming the crotch, cut the front or top side, and prepare to form the back (as represented in Diagram No. 19), by continuing lines A, B and C. Sweep the space between 6 and 18 from 8.

From 6 to 18, is one-eighth.

From 5 to 15, is one-third. Draw line D from 6 through 15. Apply the waist measure from 11 to 12, and from 13 to 14 (half of waist, 15 inches), add sufficient to allow for seams and the V taken out over the hip. Apply the hip measure from 5 to 16, and from 5 to 17 (18 inches.) Apply the measure to ascertain the size of the bottom. Half the increase in the width of the back, over the front, must be added to each side of the front, at the bottom (for instance). In the present Draft, the measure calls for a bottom 17 inches wide. The top side is already cut seven inches, leaving 10 inches for the back, which is three inches greater than the front. Place half of this, or one and a half inches, between 9 and 19, and the other between 10 and 20, always adding for seams. Apply the measure at the knee, and form the remainder of the Draft, as delineated in the Diagram. (All the Divisions used in the directions above, apply to the hip measure.) I have directed that the distance between 7 and 8, as shown in Diagram No. 18, be in all cases 3 inches. 8 serves as a pivot from which to draw lines E and F, the latter fixing the front of Trowsers at 11, and will range back or forward in proportion to the size of the hip, as fixed between 4 and 5. In Diagram No. 20, the distance between 4 and 5 is greater than in Diagram No. 18, in consequence of the hip measure being larger, and line F being drawn from 8 (which is three inches inside of centre balance line at the bottom) through 5, thus placing the top of the line more forward, and providing space for the corpulent or large bellied man. When very large, add a half to one inch round to the front, as

Diag.ª Nº. 23



Diag.ª Nº. 24

Diag.ª Nº. 22

represented; and in other respects, apply the measures and form the Trowsers as directed for Diagrams Nos. 18 and 19.

Cutting Vests.

A very simple and effective plan for Cutting Vests by a Coat pattern, is shown in Diagram No. 21, on Plate 8. Lay the Coat pattern together on a sheet of paper, the back touching the side body at the blade and waist, and the side body touching the fore-part under the arm. Mark around it, (represented by the solid lines). Apply the measure to ascertain the lengths, and form the Vest as shown by the dotted lines. Further comments are unnecessary, as a glance at the Diagram will convince the intelligent reader of its practicability.

Diagram No. 22, on Plate 8, Drafted by the Divisional System, is introduced to illustrate the changes produced by a variation in the waist measure, when breast, shoulder and blade measure remain unchanged.

The measures used in producing the Diagram are: breast, 36; shoulder, 27; and blade, 11½, 23; and three waist measures, 30, 33 and 36.

Collar Cutting.

On Plate 9, I have prepared Diagrams Nos. 24, 25, 26, 27, and 28, in illustration of my mode of Collar Cutting. The theory is so well shown by the Diagrams, that no comment is necessary. I will, therefore, proceed to describe them. After the shoulder and neck gorge have been formed, ascertain the point to which the breast is desired to roll; then measure in, from the most hollow part of the neck gorge at O, the amount of the stand of collar at that point, which will depend materially upon the formation of the neck. In a gorge formed similar to those in the present work, three-fourths of an inch at O will be about correct. If the neck gorge be cut deeper, more will be necessary, and less, if it be cut more straight. After marking the stand of collar at O, draw line A (as shown in the Diagrams) from the point where the breast is desired to roll, through the mark in front of O. Form the points of collar as desired at B, and after finding

the correct length of the collar, by measuring the neck gorge and the top of back, draw line C to intersect line A, at D. Form the curve line for the crease row from E to O, and add the desired stand of collar below E, and form the bottom or sew on side, blending it to fit the neck forward of line A. Have the bottom edge of the collar stretched a little from O to 2, and the crease row between O and 3, drawn in and well pressed. Thus a collar will be obtained that will conform to all Styles of roll, whether it be high, medium or low.

In Drafting Vests, a half-inch in front of O will be sufficient for the stand of collar.

DESCRIPTION OF DIAGRAMS

ON PLATE 1.

DIAGRAM No. 1, is a Draft for a form of good proportions, measuring 36 breast, 27 shoulder, 31 waist, and 11½, 23 blade.

DIAGRAM No. 2, is a Section of No. 1, showing the lines, &c., used for Drafting the Sleeve.

DIAGRAM No. 3, is a Draft for a Frock Coat Skirt.

DIAGRAM No. 4, is a Draft for Dress and Morning Coat Skirts.

PLATE 2.

DIAGRAM No. 5, is a Draft for the Stooping or Round Shouldered Form, and is drawn by the same measure used in No. 1, except the blade measure, which is 12½, 23, instead of 11½, 23.

DIAGRAM No. 6, is a Draft for the Extra Erect Form, and is drawn by the same measure used in No. 1, except the blade measure, which is 10½, 23, instead of 11½, 23.

DIAGRAM No. 7, is a Draft showing the important Points of Nos. 1, 5 and 6 together, all the measures used in producing it being the same, except the first half of the blade measure (applied from the centre of the back to the front of the seye).

DIAGRAM No. 8, is a Draft of a Sleeve for the Inverness or Cape Coat.

Plate 3.

Diagram No. 9, is a Draft showing the Top of the Back, drawn forward until the distance between O O is the same as between B B. (*See Description.*)

Diagram No. 10, is a Draft of Over-Sack, drawn by 38 breast, 33 waist, 28½ shoulder, and 12¼, 24½ blade, and designed to fit a customer measuring 36 over the Vest.

Plate 4.

Diagram No. 11, is a Draft of Double Breasted Vest, of good proportions, drawn by 36 breast, 31 waist, 27 shoulder, and 11½, 23 blade.

Diagram No. 12, is a Draft for Front of Full Dress Vest.

Diagram No. 13, is a Draft of a Single or Double Breasted Sack, drawn by 36 breast, 31 waist, 27 shoulder, and 11½, 23 blade.

Plate 5.

Diagram No. 14, is Back of Inverness or Cape Coat.

Diagram No. 15, is Front and Cape of the Inverness or Cape Coat. Diagrams 14 and 15, are drawn by thirds and fourths of 36 breast measure, and will be correct in size for a form measuring 36 breast measure over the Vest.

Plate 6.

Diagram No. 16, is a Draft by Exact Measurement, in good proportion. (*See Description and Measure.*)

Diagram No. 17, is a Draft for Sack Coat, by Exact Measurement. (*See Description and Measure.*)

Plate 7.

Diagram No. 18, is a Draft for Front of Trowsers, drawn by 36 hip and 30 waist measure.

Diagram No. 19, is a complete Draft for Trowsers, drawn to 36 hip and 30 waist measure.

Diagram No. 20, is a Draft of Front of Trowsers for a Corpulent Person, showing necessary addition for belly.

Plate 8.

Diagram No. 21, shows how to Cut a good Vest by Coat Pattern. (*See Description.*)

Diagram No. 22, is a Diagram showing the Changes produced by a Variation in the Waist Measure. (*See Description.*)

Diagram No. 23, is a Profile View of Figure, showing how the Measures are taken for the New Plumb, Exact Measurement System.

Plate 9.

Diagrams Nos. 24, 25, 26, 27, 28, illustrate my mode of Collar Cutting.

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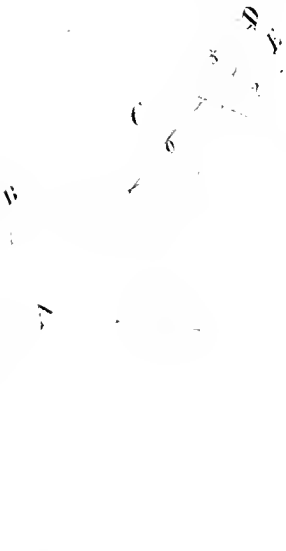
Plate, 9

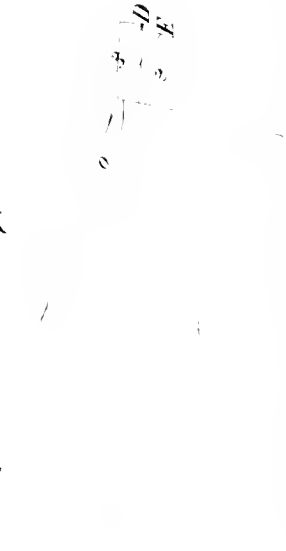
Diag. № 24

Diag. № 25

Diag. № 26



Diag. № 27



Diag. № 28

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